

Learning Nature in Schools:

Benjamin contra Dietzgen on nature's 'free gifts'

Introduction

"Pessimism of the intellect, optimism of the will": Gramsci's well-worn and loosely quoted phrase comes to mind when considering the question of learning nature in the current period, and such will be the tone of much that follows. But in order to get to the problem of nature's free gifts, we move beyond Gramsci's epithet to what Michael Löwy calls the "revolutionary pessimism" (Löwy, 2016, p.9) of Walter Benjamin. Given that I am, by inclination, a rather optimistic person, my appeal here will require some explanation. For Walter Benjamin, in his *Theses on the Philosophy of History*, a perception of catastrophic danger and precipitous decline is central to the interruption of the passage of disaster by revolutionary action. It is perhaps not surprising that what little passes for learning nature, education for sustainable development, and climate change education in schools in the UK rarely evinces a pessimism that would demand the prospect of eco-apocalypse laid before learners. Now may be the time to rethink.

The failure of social democracy

Social democracy represented and still represents for so many across the globe, the hope of a springtime for freedom and equality after the crushing freeze of totalitarianism¹. Think of

¹ Although the term is a shifting denominator, signifying socio-economic objectives and methods specific to historical periods, what the social democracy of contemporary Europe and that of Dietzgen in the 1870s share is an aspiration to achieve social reform, income and power

Tony Benn's favourite song, the retrospective story of Edouard Goldsticker, "he saw spring crushed in 1939, beneath the wheels of Germany/ he walked through all the fallen cities somehow / like a seed towards the spring ... you have to know the difference / between the roundabouts and swings / no matter what the distance / winter turns to spring." (Johnson, 1991) Yet, the hope inscribed in such lines seemed utterly hollow to Walter Benjamin in the year of his suicide, 1940², when for him, social democracy represented, precisely, "a bad poem on springtime" (Benjamin, in Löwy, 2016, p.9). Rather, for Benjamin *the organisation of pessimism* was to be the only way of escaping the disappointment of a compromise with mediocracy and the facile optimism of social democratic hope, epitomised for Benjamin by the figure of Joseph Dietzgen³, the "vulgar-Marxist" philosopher of 'dialectical' nature-monism⁴. Whilst this article does not seek to elucidate in detail the tactical realization of avoiding such a compromise in schooling, nor do I regard to as my place to recommend the specific pedagogical means to achieve the organisation of pessimism in educators' contact with young learners⁵, our aim is certainly to consider how Benjamin's revolutionary pessimism might be tempered by an appreciation of the longer-term hope represented by the vision of his straw man, the much maligned Dietzgen.

Benjamin's understanding of history was that it must inevitably be a succession of victories by the ruling class, more specifically, by those who become the ruling class, by each new ruling class, over the subordinate class; the victories of the oppressor over the oppressed. This in contradistinction to an optimistic, evolutionary view of history as a series of gains, progress, increase in rationality and civilisation presented, Benjamin felt, by the social

redistribution by evolutionary and non-violent means. However, it should be borne in mind when the term is used in this article that a significant difference exists between Dietzgen's social democracy and that which came to predominate after the first years of the twentieth century. Whereas the former aimed to force reforms which would transition the economy away from capitalism and towards socialism, the latter merely sought to ameliorate what it judged the worst aspects of the market, whilst abandoning any long term goal to replace it.

² Benjamin (1892-1940), a German Jew, had fled Germany in 1932 after years of influential and productive writing associated with the Frankfurt School, and after crisscrossing Europe finally took his own life on the French-Spanish border on September 26th, expecting to be handed to the Nazi authorities.

³ Dietzgen (1828-1888) was the first philosopher of Marxism, though an autodidact and a tanner by trade. His eventful life took him from Germany to Russia and eventually to Chicago where, as editor of the *Chicagoer Arbeiter-Zeitung*, he played a significant part in the Haymarket affair.

⁴ See footnote 12 for some notes towards an explanation of Dietzgen's nature-monism

⁵ More than ten years out from teaching in schools, the author's pessimism may have been redoubled but my hope in the capacity of teachers to find creative ways to engender a spirit of uncomfortable environmental realism remains undaunted: see later in this article

democracy of Dietzgen. Benjamin, the socialist and Jew in 1940 saw history from below, from the standpoint of the defeated.

Climate change education

Why is any of this of interest to the matter in hand? Precisely because a strategic engendering of optimism, most often of a technozoic sort, lies at the heart of so much of what passes for a pedagogical response to the threat of global climate catastrophe. In school syllabi⁶ and assemblies, we encourage individual agency in relation to matters of environmental stewardship, but against a backdrop that still suggests: recycle, conserve, insulate your home and *things can only get better*. It is crucial at this time to think “philosophy and policy together, no matter how complex their relationship may be”, for to do so creates a space in which not only disposition towards nature but the very “human subject can be challenged.” (Tesar, 2016a, p.311) Before returning to the wider philosophical debate around approaches to climate change, it is pertinent here to hone in on some policy in relation to schools. I take the UK as my starting point.

In Britain, there exists a strong policy tradition, perhaps it might be better call it a legacy, of tackling questions of contemporary ethical import through the lens of religion (Millbank, 2015). This takes two main forms, the first is Religious Education (hereafter, ‘RE’) – in the UK a compulsory part of the school curriculum, but one uniquely not legislated under the ambit of a statutory school national curriculum – and the second is the archaic vehicle of the ‘daily act of collective worship’, usually found within, but notionally independent from the school assembly. Matters of environmental concern are just one such ethical area which sometimes appear under the purview of religious study within UK schools, with assemblies tending to act as the principal vehicle in primary, and RE in secondary school. Indeed, given the astonishing dearth of reference to anthropogenic environmental damage beyond the most minimal coverage, the religiously informed vehicles might, for many, be almost the

⁶ for example several references through the author’s county’s locally agreed syllabus (West Sussex SACRE, 2015), <http://www2.westsussex.gov.uk/ds/cttee/sacre/sacre161115i8a.pdf> or the Key Stage 3 syllabus for Devon (Devon SACRE, 2014), <http://www.devon.gov.uk/sacre-agreed-re-syllabus-2014.pdf>

only opportunity young people receive to discuss, for example, climate change, biodiversity loss, or pollution.

The legal position in Britain regarding this area of policy remains unchanged in nearly quarter of a century, since a controversial Department for Education *Circular, 1/94*, with collective worship intended to “provide the opportunity for pupils to worship God, consider spiritual and *moral issues* and to *explore their own beliefs*” (emphases added)(Department for Education, 1994, p.20). This latter aspect is taken to grant a consideration, as part of a daily assembly, of individual responsibilities, duties, beliefs and values in relation to ‘nature’ and ‘the environment’. The National Curriculum in operation in the UK until 2012 made reference in its ‘Values and Purposes’ statement to “a route to equality of opportunity for all, a healthy and just democracy, a productive economy, and *sustainable development*” (emphasis added), and emphasized among its “enduring values”, “valuing...the environment in which we live”. (DfEE, 1999, p. 10). These “underpinning” curricular commitments, even if rarely noted by teachers, interpreted the “values and purposes” (DfEE, 1999, p.10) which set the statutory context for the institutional “broadly Christian” (DoE, 1994, p.21) values to be communicated through the vehicle of school assemblies. Its successor, the ‘Gove’⁷ Curriculum abandoned any pretense of commitment to the environment whatsoever, substituting an elitist “core knowledge” curriculum purporting to represent to children, “the best that has been thought and said” (Department for Education, 2014, p.6). In the absence of any prescribed overarching environmental values, assemblies still serve their role in promoting appreciation and ‘thanks’ for nature. In 2017, Mogra echoed earlier findings (Eaude, 2014) that not only did assemblies play the expected part in encouraging “values and dispositions” (Mogra, 2017. p.6), but that, of even greater importance was their role in attempting to “empower children to be active in out of school contexts” (ibid.), lending still further significance to the part they play in English primary schools vis a vis environmental and ecological ethics. Smith and Smith (2013) found that much of what was communicated

⁷ It should be noted that it was only after ‘Brexit’ that Michael Gove ‘found nature’. His conversion to the environmental cause he now so loudly and opportunistically espouses in his current role as Secretary of State for Environment, Food and Rural Affairs stands in marked contrast not only to the neglect this was given in his curriculum, but also to his active opposition to ‘eco-activism’ in schools when he served as Secretary of State for Education from 2010-14 (Martin, 2014).

in the assemblies they observed might best be identified as taught “virtue ethics” (Smith and Smith, 2013, p.6)⁸. For example, the virtue of ‘responsibility’ was promoted in relation to protecting endangered red squirrels (Smith and Smith, 2013, p.13).

In many schools a very liberal reading of the 1994 ‘legacy’ legislation amounts to some discussion of ‘reverence or veneration’ (DoE, 1994, p. 21) which stretches the sense in which the statutory daily act of collective worship should be of a “broadly Christian character”, where this means if it ‘broadly’ “reflects the traditions of Christian belief, it need not contain only Christian material” (ibid., p.21). Indeed, some assemblies can become indistinguishable from ‘lessons’ on pressing ethical issues, climate change naturally featuring highly among them. For Smith and Smith, a prime example of such an assembly concerned precisely the issue of the human ‘carbon footprint’, and its “detrimental effect on the planet” (Smith and Smith, 2013, p.15). The assembly they observed introduced this topic – one potentially redolent of climate-pessimism – with less sense that it was ‘values directed’ than that it served an instructional purpose.

For the most part, the encouragement to act with positive a disposition towards nature makes the school assembly and its collective act of worship a source of hope and, dare I say, optimism, since the ‘values ethics’ promoted seek to invoke a sentiment, a readiness to act. The shortfall of this approach is the lack of urgency it evinces, perhaps even the complacency it invites. An education or an economy buoyed by a sense of progress and optimism is characteristic of the ideology of endless growth that, even fifty years after Ivan Illich named it, still represents the powerful myth of a “New World Church”. Institutions that embody this myth, claimed Illich, “create needs faster than they can create satisfaction, and in the process of trying to meet the needs they generate, they consume the Earth. This is true for agriculture and manufacturing, and no less for medicine and education.” (Illich, 1996 p.110). It is argued here that a disposition towards nature only really results in our rising to her defense when we feel pressed to do so out of a sense of necessity, perhaps even of survival – an attitude fed less by a ‘things-can-only-get-better’ optimism in virtuous

⁸ Though such ‘virtue ethics’ will often still be framed religiously in schools within the context of the daily act of worship that the assembly seeks to contain.

activity and endless growth than a pessimism in the very structures that depend upon such growth.

Pessimism

In contrast with the dominant responses to climate change, such as the hardworking hopefulness of a modern-day Germany's or Scandinavia's at least still partially social democratic mixed economy of transition, a Benjaminian approach is rather a wager on the possibility of the revolutionary struggle for emancipation taking off and interrupting the inevitable decline towards a collapse of so called green capitalism under its own contradictions.

We are helped if we recall the formulation of Henri Bergson, and deployed by Žižek (2010). For Bergson, in 1914, the war appeared both probable and *impossible*; only afterwards did possibility, even inevitability insert itself into a projected past⁹. Bergson and Benjamin: both standing on the precipice of war, both certain of the horror of mass annihilation, both witnesses to the quiet passage of the impossible to the inevitable. Many commentators have like David Orr (2004, pp. 19-20), compared our wildly reckless disregard for the value of our life support (the biosphere) in our schooling systems with a rush to war. If those like Orr are right, whilst our path winds towards a slow motion catastrophe, or series of catastrophes rather than a single declaration of crisis, the smooth and unbroken passage from business as usual to ecological, social and economic collapse will be one we regard with the wonderment and incontrovertibility of hindsight.

It is true, as Löwy (2016, p.13) explains, that Benjamin launched an attack on the Darwinian and positivist cult of progress - certainly something the Joseph Dietzgen and his followers, especially his translator into English Ernst Untermann were guilty of - but the social democrats' optimism was a product of 1870's-80's (or the 1900's in the case of Dietzgen's translation), not 1940, or even 1914. Perhaps the complacent optimism of many in education today in the face of global climate change may seem equally astonishing to my 54

⁹ There are two ways of looking at this: it either operates as a heuristic means of interrupting patterns of thought in the now, or if one were to accept a Whiteheadian account of time, then such choices can in fact impact upon atemporal ontologies.

and 43 year old son and daughter in the much impoverished world of 2060. It is easy for us to project ourselves into periods of unfettered optimism – they tend to be fuelled by decades of debt-driven boom. Before criticising Dietzgen's optimism, we might think, for example, of the millennial years of New Labour 'Britpop' growth – 'things can only get better' - and reflect on the consequent debt crisis and global financial consequences. It is perhaps harder to project ourselves into the blazing collapse of ecosystemic integrity, as Žižek would have us do. Nevertheless, Benjamin's sentiment, the retrospective recognition of misplaced optimism, holds true today in relation to the trash-party binge of the last half-century's Great Acceleration.

To a degree, Benjamin's critique of social democracy's faith in progress is rooted in the Romantic rejection of industrialisation - something obviously problematic from a radical leftist perspective, but also questionable as a line against Dietzgen in general, if not perhaps the reductive Dietzgen of the 1876 Volksstaad essays. Elements of Dietzgen's own work inspired by Romanticism could be cited¹⁰, and we might mention no less a figure than Bogdanov saying Dietzgen was closer to Schelling than to Spinoza (Bogdanov, 2016, p.192) in respect of the inseparability of 'spirit' and matter. This is by the by: the provenance of Dietzgen's ideas may be arcane; more importantly, my view is that there is much more of real pedagogical value to be found in Dietzgen's underlying (Spinozistic and post-Romantic) philosophical orientation towards nature than his 1870's optimism suggests, or than Benjamin's 1940's realism condemns.

Before returning to schooling, the next move in this argument, then, is to proceed from an admission of the necessity for pessimism in respect of human history to a questioning of the target of Benjamin's ire, which I take to be somewhat misplaced. If a deep pessimism is required in relation to the human prospect in the face of global climate change, so is a recognition of the significance of the worldview once promulgated by Dietzgenite social democracy, one informed by Romanticism, and by Spinoza, and as such, a candidate for a 'rebranding' as a prototype green anticapitalism.

¹⁰ The position of rationality in Dietzgenian-inspired cosmic socialism and syndicalism is unusual in the Marxist tradition because it is so precariously balanced against mythologizing. To some extent Dietzgen's 'social democracy' works in the service of a profoundly Romantic and utopian vision which owes more to Schelling's philosophical dogmatism than to later Marx. As the metaphysical absorption into nature gives way to an equally paradoxically empowering surrender to the collective, rationality takes a back seat to the dogmatic assertion of 'it' before 'I'.

Work and progress

Benjamin (1968, pp.258-9) rightly focuses on the importance of the concept of *work* in the writing of Dietzgen, and the emphasis placed upon the redemptive capacity of labour in European social democracy, which represents for Benjamin a mirror of Stalinist Stakhanovism, but is also pre-emptive of the epigram above the gates of Auschwitz. The claim that human labour is able to attain "what no redeemer has ever been able to do" (Dietzgen, in Benjamin, 1968, p.259) is typical of Dietzgen's God-building tendency. The absolutist levelling power of labour for social democracy is presented in the *Theses on the Philosophy of History* as the enemy of nature, rather than, as Benjamin would have it, nature's doula, conquering rather than coaxing natural tendencies. If nature 'exists gratis', as Benjamin's 'social democrats' proclaim, it is a complement to, and indeed the condition of the vision of labour as promethean. We all know of the devastating impact of the absolute belief in the conquering power of labour in the thinking of a Stalin, Mao or Kim Il Sung. It is certainly possible to see how the technozoic trend in totalitarianisms demonstrates this understanding of nature as free, a trend that leads to fascist¹¹ as well as to ('Kimilsungist-Kimjongilist') Juche conceptions of nature's valuelessness and passivity (Kim, 1984, pp.94-103). Like their authoritarian alternates, those who took up Dietzgen's mantle, most especially his translator into English and his son may certainly be guilty of reckless optimism and prometheanism. But Dietzgen himself here stands in as a straw man, a representative of the social democratic mirror of fascist and Stalinist domination of nature, and, I argue, rather unfairly so. In Watson's (1998) words, "Benjamin's use of Dietzgen was polemical, abstracting quotations in order to paint a portrait of the criminal banality of pseudo-socialism and positivist reformism" (p.107)¹². However, whilst it is true that Dietzgen had moved to the right in the 1870s (before becoming re-radicalised in Chicago in the last two years of his life) Watson identifies that even in the "hopelessly

¹¹ Fascist social formations do not necessarily regard nature as 'free', but like other totalitarian forms, any potential value in nature is put to the service of the imagined 'nation' and/or 'race', with costs regarded as externalities.

¹² Watson goes on to suggest that Benjamin's inaccurate ascription of a quotation to "Wilhelm Dietzgen" (Benjamin, 1968, p.260) suggests that, rather than applying a conscientious critique to Joseph Dietzgen's work as a whole, Benjamin was using him as an exemplar of instrumentalist reformism in general.

vague” Volkstaat essays of 1876 from which Benjamin draws, there are plenty of passages which might be selected to contradict the reformist and instrumentalist charge.

However, the anti-ecologicistic charge goes deeper, and is more important to the matter in hand. It is that, contrary to Marx’s claim regarding value that “labour is the father of material wealth, and earth is its mother” (Marx, 1990, p.134), Dietzgen was a forerunner of the Lassalleian position that labour is the source of all wealth:

“This vulgar-Marxist conception of the nature of labour [ascribed to Dietzgen] ...recognises only the progress in the mastery of nature, not the retrogression of society; it already displays the technocratic features later encountered in Fascism. Among these is a conception of nature which differs ominously from the one in the Socialist utopias before the 1848 revolution.” (Benjamin, 1968, p.259)

Benjamin wishes to associate Dietzgen with those whose “new conception of labour amounts to the exploitation of nature, which with naïve complacency is contrasted with the exploitation of the proletariat” (ibid., p.259). The distinction Benjamin wants to draw is between the exploitation of nature on the one hand, and the realisation of nature’s potential. The former is associated with the ‘all-conquering’ capacities of labour. However, his illustration of this point seems from a twenty-first century perspective spectacularly ill-judged. In choosing to identify Fourrier’s vision as an exemplar of the human realisation of nature’s potential, he cites the utopian socialist’s account of a world in which

“as a result of efficient co-operative labor, four moons would illuminate the earthly night, the ice would recede from the poles, sea water would no longer taste salty, and beasts of prey would do man’s bidding. All this illustrates a kind of labour which, far from exploiting nature, is capable of delivering her of the creations which lie dormant in her womb as potentials.” (Ibid., p.259)

This conception, echoed today in the corporate vision of the infinite malleability of the genetic capacity of flora and fauna to be shaped to human ends – an *Oryx and Crake* (Atwood, 2013) world where the mighty potential of the power of melting icecaps and a forever illuminated night sky, has developed into precisely the totemic standard of anti-ecological *dystopian* rather than *utopian* dreams, a “Second Genesis... heralded as an

amplification of nature's own principles, thus justifying the emerging corporate eugenics science as a second-tier evolutionary trend" (McLaren & Houston, 2005, p.78). Yet, for Benjamin, it is Dietzgen who is cast as the technician: "Nature, which as Dietzgen puts it "exists gratis", is a complement to the corrupted conception of labor." (Benjamin, 1968, p.259) Benjamin was thinking, no doubt of the appalling and brutal subjection of labour to the dirty and backbreaking productivist exploitation of natural resources seen in both the Soviet Union and in Fascist Germany (this in contrast with Fourier's vision). But, to select Dietzgen as the standard of such instrumentalist thinking was misguided. For sure, Dietzgen's naïve optimism looked terribly misplaced by the 1930s, as Watson comments, "Benjamin's 'unfairness' to Dietzgen is not the result of stupidity or duplicity", rather it is a response to the "tone of the *Volkstaad* [sic.] essays of the 1870s... Benjamin was protesting at the glazed impersonality of positive culture in a period of atrocity and holocaust: by 1939, any trace of confidence in progress was an obscene caricature" (original emphases) (Watson, 1998, p.108).

For Benjamin, Dietzgen appears to represent something akin to the climate change deniers of today, those who place faith in the capacity of industrious humanity to invent technological solutions to the 'minor impediments' placed in our way by changes in global temperature, whilst expecting that such technologies will also yield a healthy profit. Benjamin's Dietzgen is a prophet of socialism doomed to the fate of Icarus by his own hopeless faith in the 'working man's' inventive capacity to escape the consequences of our profligacy, our productive excess. I think such an ascription is misdirected. The lesson of Dietzgen is not in any sense to treat what nature offers as 'free', but to reimagine the 'gifts' as always already having been ours, in the sense that humanity contains nature within itself, and paradoxically, nature also contains humanity. For sure, there is no 'value' to nature in Marx's sense, but nature is the mother of Marxian value, whilst standing behind and at a distance from her bastard child. In defense of Dietzgen, it is worth looking at the passage against which Benjamin lays his charge. Whilst it is possible to interpret Dietzgen's vagueness to suggest much that the philosopher probably never intended, on the question of nature's 'free' gifts, he is relatively clear; and it seems that Benjamin's polemic derives not from a close reading of a text which was, after all, by 1940 rather old-hat, but from a willful interpretation of the general sense of Dietzgen's optimism. The key point in the text,

and one that concerns us, in the application of these ideas to climate change education, is that for Dietzgen, nature is 'gratis' only in the sense that it cannot be 'owned':

That work on a small scale is not profitable and that private property exploits the workmen, is an empirical fact; it is won experimentally by induction and did not fall into our heads from the nebulous region of hazy generalities. From that act we deduce, as a "practical conclusion", the demand for co-operative work on a rational and communal scale. Since Adam Smith, and even earlier, it is acknowledged that *labor, when applied to nature which is obviously nobody's property, is the creator of all capital and rent and profit.* (Emphases added) (Dietzgen, 1906b, pp.192-3).

Whilst this position deviates in an interesting and provoking manner from Marx's dictum above, Dietzgen's understanding of nature as free insofar as it is "nobody's property" does not equate with licensing its 'free' exploitation. Rather, what Dietzgen wishes to do here is to locate nature as in a fundamental sense 'beyond' the circuit of exchange. Human activity is the progenitor of (Marxian) value in that value exists only as a relation internal to the logic of human production, consumption and exchange, though Dietzgen acknowledges that such value cannot exist entirely incorporeally, but only in the application of social relations to already existing natural ones. Whilst we might want to question this formulation from the ecological perspective of 'intrinsic value' (in the special sense developed by the Deep Ecological school of thought), Dietzgen's highlighting of the 'special' status of nature in relation to value is certainly closer to ecological thinking than the position of Benjamin, which equates the infinite malleability of nature with utopian human achievement.

Educational implications

Disposition

There are disquieting lessons to learn here on the acquisition of understandings of nature. Of course such processes occur within a context where every linguistic construction, from 'family' to 'environment' is up for grabs. The ideological saturation of the context for

language utterance and the consequent mediated internalisation of ideological concepts into our subjective sense of settled and inviolable truth interpellates our being.

As long as we hold on to a generalised optimism a) that things are getting better in the world (or at least our corner of it), i.e., a sense of 'progress'; b) that we can and will manage the effects of climate change and our wider impact on our home-planet; and c) that we will readily adapt to those aspects of climate change that we cannot manage; *then*, we will also continue to communicate to our children a rather general sense that nature 'exists gratis', or exists for human use, even if this requires some 'thanks'. This, in turn interpellates a new generation of consumers whose understanding of the cost of nature to themselves, their prospects and their home-place is at best hazy, at worst an exercise in self destructive 'false consciousness'. Perhaps this could be framed in terms of disposition. To be clear, the danger is one of creating the conditions wherein dispositions which are determined by schooling are defined by a sense of gratitude towards nature, but without any commitment to repay the debt of gratitude with *work* towards conserving nature's metabolism.

The lesson of Benjamin (and Bergson) is that optimism subjects us to a faith in the capacity of social democracy which can result only in betrayal and disappointment as we drift into the consequences for planetary health of vacillation and compromise. On the other hand a radical pessimism of the intellect, properly and sustainably internalised to become part of our subjective being recognises and *feels* the impending catastrophe of climate change. Such a view regards nature not as 'free' in the way which Benjamin (erroneously) accuses Dietzgen of promulgating, nor yet as malleable in Fourier's sense. Rather, a radical pessimism invites us to contemplate the cost – the very great cost – of nature to ourselves; and internalized from infancy, such a *weltanschauung* produces at least the possibility of a Benjaminian subject, *disposed to a revolutionary will to break with the inevitable*.

Nature-monism

My contention is that actually, contrary to Benjamin's assertion, this is where Dietzgen comes into his own, in that for him, nature and society, matter and mind, being not separate entities but expressions or emanations of a common materiality, mean the cost of

deterioration in the complexity and stability of one aspect of the totality, is a cost to the integrity of the whole¹³. The twenty first century reader may well charge me with over-

¹³ Dietzgen's proto-green credentials hinge on the claim that he offered an approach to humans' relationship with Nature which prefigured that of later deep greens, albeit one which was also married to an optimism ill-fitted for the era of climate chaos. In common with the crude mechanical materialists of his day, Dietzgen wanted to radically extend the category of matter. In the essay that Benjamin condemns, 'Social Democratic Philosophy' (1876), Dietzgen writes: "*The conception of matter must be given a more comprehensive meaning. To it belong all phenomena of reality*" (Original emphasis) (Dietzgen, 1906b, p.222). And, again: "Socialist materialism understands by matter not only the ponderable and tangible, but the whole real existence." (ibid, pp.300-301) Whilst Dietzgen, like modern physicists, struggles to communicate his ontology, his intention is clear: matter must subsume all other categories. There is no mind, spirit, activity, movement which is not an expression of matter. Gods and souls are metaphysical reifications. Whilst psychology is important, its status as a science derives from its understanding of the materiality of thought. Dietzgen claims to have clarified the sense in which two abstractions frequently employed by humans in their dividing up of the unified material world – *minds* and *forces* – are nothing else but that, *abstractions*. In the words of the 'Dietzgenist', Ernest Untermann, "Historical materialism takes its departure from human society, dialectical monism from the natural universe" (Untermann, 1914, p.243). The question of whether this turns orthodox Marxism on its head we shall leave aside – this is, after all, a footnote! It is certainly true that, like many later ecological thinkers, Dietzgen wishes to emphasise first and foremost the formal unity of all things, understanding the network of relations which constitute the tools of Marxist social analysis as expressive of the totality of interrelationships that form the dialectical realisation of the natural universe. In this respect, he acknowledges a methodological debt to Spinoza: "We [...] follow the suggestion of Spinoza, who required of the philosophers that they should consider everything in the light of eternity. In so doing we find that the tangible things, such as the brain, are qualities of nature, and that in the same way the so called functions are natural things, substantial parts of the universe." (Dietzgen, 1906a, p.381) In calling into question the 'function' of aspects of the natural universe, he wishes to break down the dualism which would separate thing and relation, subject and predicate. Predications are ascriptions of partial relations, abstractive expediences misapprehended as positive distinctions. Whilst it is true that Dietzgen goes well beyond Spinoza in his ontological prioritisation of phenomena, he does so largely only insofar as 'individual' phenomena are suggestive of broader relations within nature, including between human and other aspects of the universe. Dietzgen refers to many entities which are not ponderable but which nevertheless exist as abstractions. His references to gravity, electricity and light are revealing. He does not talk of these as forces but as part of the material natural world, even though they cannot be grasped by the senses in the same way as other aspects of materiality. He is clear that Marxists need to rethink their understanding of what constitutes materiality in order to take in those aspects which are not physical or corporeal (Burns, 2002, p.204). For Dietzgen, forces should be conceived, not as effects of matter, nor as instantiating effects upon matter, but identical with matter in his extended sense (Dietzgen, 1906a, pp.124-32). In this regard Dietzgen shared his vision both with his contemporaries, the bourgeois materialists – Jacob Moleschott who had famously and controversially declared the inseparability of force and matter, and Ludwig Büchner, knowledge of whom Dietzgen demonstrates – and, perhaps more intriguingly, with William Clifford. If Clifford foreshadowed the work of Einstein, as is often remarked, then Dietzgen's monism too, though not grounded in the emerging mathematics like Clifford's, prefigures the twentieth-century's attempts to create a unified field theory which would reduce both forces and matter to a dynamic unity existing geometrically and, only analogously perhaps, as a reality existing at the edge of human comprehension. The socialist materialist position, as expressed by Dietzgen is that "we regard... forces, like heat, gravitation and all which is audible, visible and tangible, as a form or species, as a piece or product of the general force, which is identical with the omnipresent, eternal and indestructible cosmic matter." (Dietzgen, 1906b, p.219). Dietzgen's materialism is in effect a form of physicalism. Such a position requires a number of leaps of imagination – not least of them the equating of matter with space – which are difficult to express within everyday language, but which nevertheless form a basis for some interpretations of the ontological implications of much of contemporary physics (Esfeld, 1999). Firstly, though, it is not sufficient within Dietzgen's ontology for space *alone* to be identified as identical with matter. Extension allows only for that set of relations which express regional abstractions, wherein an ascription of properties is predicated upon the negation of the whole by the description of the part. Such a description is inadequate to a fully dialectical account. Predicates cannot be postulated with individuated abstractions as their ultimate subject, for such an ascription would reify the part over the whole, which is the only true subject of properties. When one describes the attributes of an abstraction one does so by positing a lack at the heart of the abstraction, defining the individual via properties which are those of the whole. "Those who assume the forces to be mere properties or predicates of matter are badly informed of the relativity ... between substance and property" (Dietzgen, 1906b, pp.297-8). In a very real sense, individual properties such as mass or momentum are abstractive conveniences, efficacious as means to isolate aspects of the relation of dynamic parts to the whole for practical purposes, but only ever relative to other abstractive possibilities – possibilities which, quantum

reading Dietzgen here, but the fact remains, he is an anomalous writer within the socialist tradition and one for whom, nature, that is 'cosmic matter' in its endlessly variegated forms, represents the ontologically primary subject, having "not only gravity, but aroma, light and sound - and why not also intelligence?" (Dietzgen, 1906b, p. 22) For Dietzgen material nature is intelligent where as it takes the form of active human brains - brains at work - but value in nature exists only insofar as it is a product of that brainwork. Dietzgen's collectivist and monist vision raises significant challenges for those approaching virtue ethics in schooling, in the context not only of climate change but in a world where "policy elevates the self as a yardstick of measurement", for, as Tesar suggests, a project such as Dietzgen's "produces a new ontology of the self, taking into consideration subjects and objects alike." (Tesar, 2016, p.594)

The technical and numerical advancement of one species - humanity - alone represents progress only in the limited terms of that species' own short term interests. But deep prehistory suggests that eschatologies reduce to localised phenomena, as empty as the dreams of green capitalism, in the face of ecological tendencies towards homeostasis. For sure, one of Dietzgen's great shortcomings was that he did not appreciate the implications of his cosmology for his myth of unending growth and progress, and this left the door open to his social democratic followers to collapse the story of human history into an evolution narrative that spoke to the extension of nineteenth century optimism into the natural realm, appearing to sanction the limitless primitive accumulation towards the ends of a triumph of man-in nature. This wild optimism is today reflected in the vision of those who imagine a 'good Anthropocene': as humanity becomes a telluric force in an ever accelerating, overheating earth-system, they imagine that the 'geo-story' of the 'becoming-Earth' - human and natural history as one - can find a happy ending in "a wonderful opportunity for humankind to prove its creative power and finally take its destiny into its own hands" (Hamilton, Bonneuil and Gemenne, 2015, p. 9): surely the neoliberal

physics suggests, would render other abstractions void: that is, mass or momentum, the abstraction collapses the dialectic. In order for such a schema to operate successfully as an explanatory mechanism it is necessary to make explicit what Dietzgen often (but not consistently) overlooks and to state that it is not space which is identical with matter, but *spacetime*. Such a model facilitates an account of abstractive process (consciousness) along with other motions as sequences of spacetime points having an identity within a shared dynamic.

counterpart to Fourier's utopia. In this respect them, Benjamin was right: organising for a revolutionary pessimism is a necessity.

Schooling

That said, is it sensible or desirable to teach pessimism to children in schools? The reader may be familiar with David Sobel's idea of 'ecophobia' (1996) – the fear of engaging with environmental issues, broadly defined, provoked by a justified sense of the panic-inducing helplessness that age-inappropriate doom-mongering ecological pedagogies can produce. Any attempt to engage young people in a discussion informed by a version of eco-pessimism should take into consideration Sobel's well-founded concern that "[i]f we fill our classrooms with examples of environmental abuse, we may be engendering a subtle form of dissociation." (Sobel, 1996, p.2) As with other forms of abuse, Sobel claims, children are likely to turn from the painful experience of environmental degradation and as such, the pessimism argued for here might "end up distancing children from, rather than connecting them with the natural world." (ibid., p.2) Clearly such an eventuality is to be avoided. Nevertheless, I maintain that optimism in and illusions regarding the likelihood of social democracy's success in interrupting the capitalist processes of biospheric destruction are equally misplaced: they remain 'a bad poem on springtime'.

I do not presume to understand the great range of unique teacher-learner relationships wherein this subtle dance of danger and dissociation occurs. Teachers will find a way to acknowledge the possibility of loss and grief that young people can experience (Sobel, 1996, p.28) as the prospects for a future, long-term, stable relationship with the flora and fauna of their home-places slip away. Whilst it falls beyond the scope of this article to discuss this matter further, I would wish to reiterate to the reader that pessimism regarding nature on the one hand, and communion with her on the other need not be mutually exclusive. Indeed, Benjaminian pessimism must and should be set against the possibility of the transformative oneness with all things that I associate (in footnote 13, above) with Benjamin's straw man, Dietzgen. Sobel himself attests, a process of 'bonding' and 'communion' through slow-learning, avoiding the temptation to "'infect our children with our impatience'" (Sobel, 1996, p.37) to solve adults' environmental breakdown, may be

crucial. Such an approach is not incompatible with pessimism regarding our biosphere, though the cautionary note he sounds regarding age-inappropriate interventions is well made. The contradiction which really pertains in schooling is between the teaching of nature as free, as a series of 'gifts', this representing the hopeful business-as-usual of educators; and a glazed optimism regarding the prospects for human nature-interactions and the future of the planet which, whilst on the surface seeming compatible with the former, misunderstands its consequences.

Very few references exist in the current and increasingly distinct national curricula of England, Scotland, Wales and Northern Ireland to 'nature', and climate change. Taking the English 'Gove' curriculum (DfE, 2014) as an example, there is one fleeting reference to 'nature' in Science for year 4, one mention of climate change in the Chemistry programme of study for Key Stage 3 (years 7-9) and two in the Key Stage 4 (years 10-11) programme. Here is not the place to extemporize on the strangeness of this fact - that the gravest threats ever facing the long-term viability of our tenure on the planet warrant barely a mention in our children's education, that in Britain we largely teach as if the global environment of our current children's mature adulthood will be the same as today's - yet in our assemblies, the 'daily acts of collective worship' which British law still requires of grant-maintained schools, our children continue to be invited to give thanks for the gifts of nature, and to be encouraged to do their bit towards saving the planet. Every school will have its examples, but take, for instance the assembly named 'Presents from Nature', published on the Assemblies.org.uk website by SPCK, the UK's largest Christian publisher. In it, the teacher conducting the assembly is advised to "[e]laborate on how trees have given us all these 'presents', and add other benefits, such as medicines, furniture, houses, homes for animals, compost, etc." (Johnson, 2004), in response to which children reflect on the 'gift of leaves' and are encouraged to "look for a tree at playtime/hometime to hug as a way of saying thank you" (Johnson, 2004). This may be harmless, touching even, but suggestive of a relationship to nature which requires gratitude but little else by way of commitment, and no sense of threat to such trees. As a teaching point, children are invited to recognize that "one vital gift of trees is that their leaves act as 'vacuum cleaners' to help keep our air clean. They absorb carbon dioxide and give out oxygen, helping us live and breathe" (Johnson, 2004): a

case of the type Smith and Smith (2013) identified as one of those rare opportunities in UK primary schools to engage with questions of anthropogenic environmental change.

Gifts

In theoretical terms, there is a solid body of Christian thinking which considers the 'gift' of nature, exemplified perhaps by the writing of Anne Primavesi (2003, 2009) who speaks of the 'givenness of Gaia' as "the mysterious creative operation of elements that has made every gift event and will make every future gift event possible" (Primavesi, 2009, p.68). What this shares with the understanding of Dietzgen is an account of nature - Primavesi prefers 'Gaia' - which identifies 'her' as before and beyond the capitalist economy. Primavesi writes instead of an 'economy of gift events' made possible by the original gift of the world, representing the 'undefined potential' that human labour transforms. But Benjamin was right that nothing exists 'gratis' and by their words and hymns and prayers, schools in the UK have a very real potential to delude children into an acceptance of 'gifts' that requires merely thanks, *not repayment in the labour of guardianship*. Needless to say, the capitalist mode of production continues to misdirect our labour away from stewardship and towards the exploitation of non-renewables, as if what nature 'gives' remains free; pushing ever further back across the horizon of consciousness the externalities which give the lie to 'cheap' nature's inexhaustibility. Primavesi's 'gift economy' relies upon an understanding of transference of resources which "cast[s] off what Blake called the 'mind-forged manacles' of the reigning culture in which commodity exchanges pass for gifts" (Primavesi, 2009, p.82). Climate change, she claims, forces a recognition that any 'gift event' forms part of a 'thread' of continuous giving and receiving: in order to make possible the receipt of nature in all her diversity by future generations, vital, life-sustaining labour must be undertaken by each receiver as the cost of maintaining the thread, making possible future gifts.

However, as the great Anthropocene extinction gathers pace, in schools we too often act as if the planet we know now could be saved, as if the death sentence passed on the Great Barrier Reef or the Alpine glaciers could be commuted. It is far too late for that (Lynas, 2008, p.60). The thread of which Primavesi writes has become dangerously frayed, and we perpetrate a lie to our children if we do not inject a little realistic, Benjaminian pessimism

regarding the ameliorative labour that will be necessary as an additional cost towards restoration of the damage done to that which they will take receipt of.

Conclusion

Contemporary discussion of climate change in UK schools asks little in terms of cosmological realignment. Why should it, one may ask? In England in particular a legacy of deep church involvement in schooling carries its imprint in an orientation that seeps beyond the more or less well-observed daily act of worship. The Christian indictment to give thanks for the gifts we have been given by God may appear on the face of it an encouraging basis for exhortation to environmental consciousness and activity, but I think the legacy of Christianity is both more mixed and speaks to the lack of serious engagement of school curriculum and policy with climate change education.

I am as convinced of the impossibility of capitalism in either its neoliberal or social democratic form successfully addressing global climate change as I am convinced that the sun will rise tomorrow. Many people would regard that as a deep pessimism. And it is true that if I also believed that the mode of production were inevitable and irreplaceable, I would be deeply pessimistic. But, like Benjamin, I am willing to wager on the possibility of the struggle succeeding. Pessimism, in general, makes that all the more likely.

Policy makers can and will continue to stipulate curricular content in relation to climate change, pollution and environmental questions more generally. In most major developed countries (with the exception of those states in the USA where flat-earthist obscurantism holds sway) this includes some, at least minimal engagement with the facts regarding extreme weather events, sea-level rise, desertification, and so on. What they are less likely to demand is that teachers present the implications of global climate change, both for humans and non-human nature as if these could be significantly ameliorated by the Paris Accord or the latest round of climate talks.

The lesson here is to teach with more pessimism. But, to do so cautiously and so as not to engender ecophobia. And recognize that nature is 'free' only in the limited sense that it stands above or outside the field of human valorization. Longer term, the role of our

cosmologies will come to the fore, and teachers and policy makers will need to consider fundamental dispositions towards nature, recognizing that the importance of monistic understandings of the kind promoted by Joseph Dietzgen outweigh the wholly justifiable Benjaminian criticism of optimism in endless social democratic progress and productive growth.

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